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FOREIGN ANIMAL  
DISEASES REPORT



JANUARY 1977



HOG CHOLERA - 1976

Status of the State-Federal Hog Cholera Eradication Program: Fiscal year (FY) 1976 was somewhat of a disappointment for the Hog Cholera Eradication Program. Almost everyone had anticipated the United States would be declared hog cholera free in 1976. Following the rather extensive outbreak resulting in 163 cases in several States in FY 1973, the incidence of infection was reduced to two cases in FY 1974. One of these was confirmed in Mississippi and the other in Puerto Rico.

When hog cholera was not confirmed in FY 1975, and Great Britain permitted the importation of pork from the United States, many concluded the goal of eradication had been achieved. Plans for an appropriate celebration had become a major consideration.

Texas Break: The first disappointment came within the first 4 days of FY 1976, when hog cholera was confirmed in Texas on July 4, 1975. One additional related case was confirmed in Texas. In addition, 22 herds in Texas and six herds in Oklahoma were depopulated as exposed.

The export market to Great Britain was promptly lost following the Texas outbreak. It has been estimated this represented a \$15 million loss to the swine industry in FY 1976.

The source of virus causing the Texas outbreak was not definitely established.

Program Changes: At the time of the Texas outbreak, the Federal regulation was changed to permit total payment of indemnity from Federal funds for swine destroyed because of hog cholera.

The previously existing phase status that enabled each State to individually move ahead in the eradication program no longer served a useful purpose, and references to phases were discontinued.

New Jersey and New England Outbreaks: The second outbreak of hog cholera in FY 1976, was first confirmed in New Jersey on February 24, 1976. This was followed by confirmation of infection in Rhode Island, Massachusetts, and

New Hampshire. This outbreak has resulted in the depopulation of 10 infected and 19 exposed herds in New Jersey; one infected and two exposed herds in Rhode Island; six infected and 22 exposed herds in Massachusetts; and one infected and two exposed in New Hampshire. A total of 24,038 swine was depopulated, involving approximately \$2.9 million in indemnity. Emergency operation costs, excluding the continued increased surveillance in the area and the increased surveillance in other parts of the country, resulted in an additional expenditure of approximately \$2.2 million. The last positive case was confirmed on August 1, 1976, and the last quarantines for hog cholera were released on September 13, 1976.

Epidemiology of New Jersey and New England Outbreaks: These outbreaks occurred primarily in food waste feeding, but the source of the virus has not been established. Serological evidence, along with the actual disclosure of outdated hog cholera vaccines in New England, is supportive evidence that the infection may have resulted from the use of vaccines. These were products stored prior to the prohibition on the interstate movement of vaccines in 1969. There was no evidence suggesting the use of vaccines in New Jersey. Epidemiological studies support the theory that infection may have existed in the New England area for an extended period. New England is believed to be the source of the infection in New Jersey, but the exact method of transmitting the virus was not established. Most swine movements from New England are toward the New Jersey area, and the same markets are also used by New Jersey producers.

National Surveillance: Continued surveillance is essential to assure success of the hog cholera eradication program. The chronic nature of the remaining hog cholera virus is such that it can remain active in a herd without producing substantial death losses. Experimentally infected animals have been demonstrated to continue to shed virus for periods exceeding 3 months. As a result, it is essential that all areas of the country continue hog cholera surveillance. Hog cholera free status is near, but it will require continued effort for realization. The current policy requires intensive surveillance for 12 months following the last positive case.

#### HOG CHOLERA CASES FISCAL YEAR 1976

<u>STATE</u>	<u>POSITIVE CASES</u>	<u>ANIMALS DEPOPULATED</u>	<u>EXPOSED CASES</u>	<u>ANIMALS DEPOPULATED</u>	<u>INDEMNITY</u>
Texas	2	218	22	2,132	\$ 206,017
Oklahoma			6	1,134	130,673
New Jersey	10	12,500	19	6,480	2,373,757
Massachusetts	6	1,722	22	878	287,708
Rhode Island	1	1,571	2	110	174,598
New Hampshire	<u>1</u>	<u>729</u>	<u>2</u>	<u>65</u>	<u>97,495</u>
TOTAL	20	16,740	73	10,799	\$3,270,248

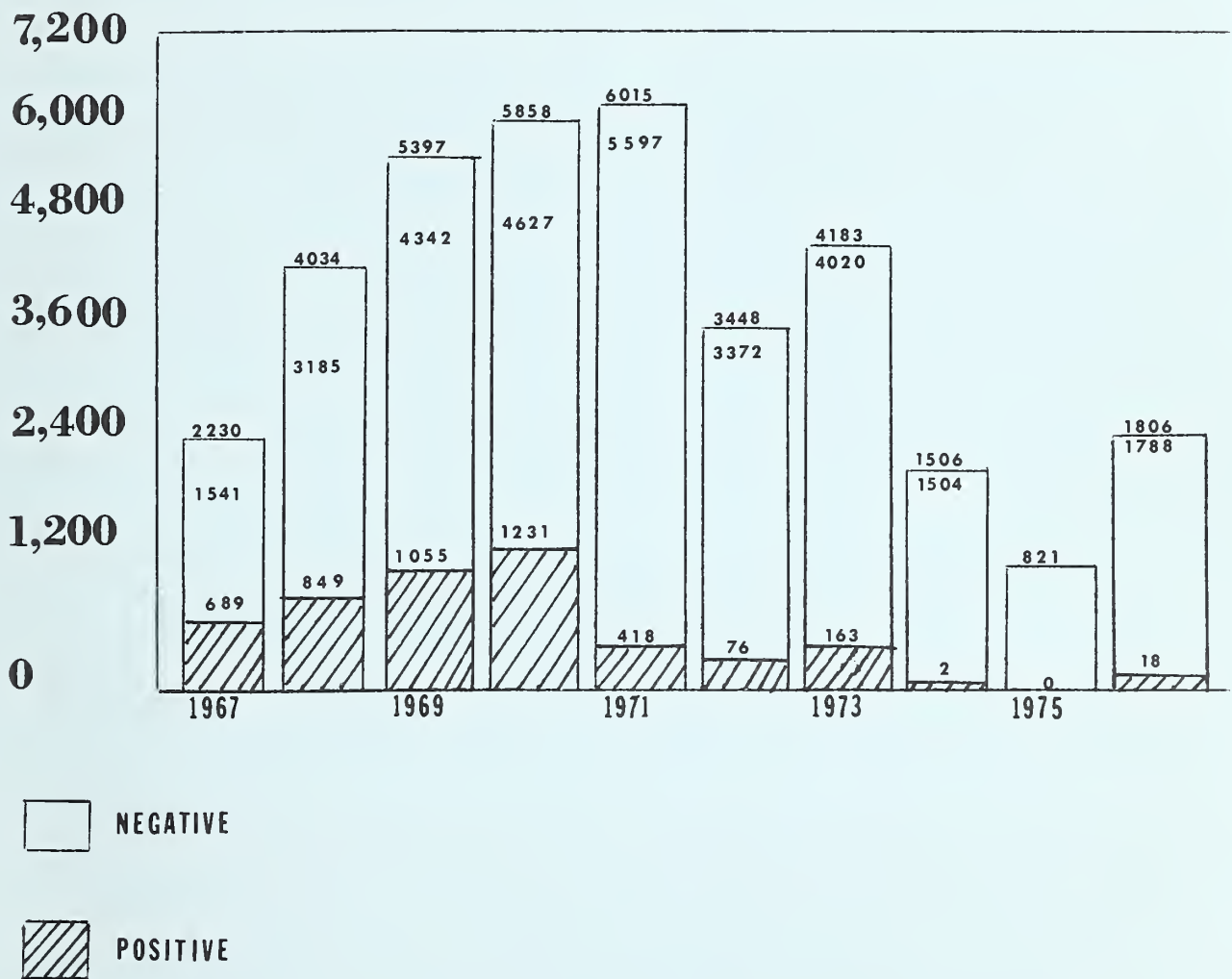
HOG CHOLERA SURVEILLANCE  
Fiscal Year 1976

	<u>Herds</u>	<u>Swine</u>
On Farm Inspections	143,957	7,869,132
Market Inspections	522,037	11,725,794
Laboratory Screening:		
Fluorescent Antibody (FA) Tests	6,776	80,317
Serum Neutralization (SN) Tests	3,523	99,153

## HOG CHOLERA INVESTIGATIONS

July 1-June 30, 1967-1976

NUMBER





## INTERNATIONAL CONFERENCE ON HOG CHOLERA AND AFRICAN SWINE FEVER

A meeting sponsored by the Food and Agriculture Organization and the European Economic Community was held in Hannover, Germany, September 7-11, 1976, to present findings on hog cholera (HC) and African swine fever (ASF), and to develop plans for eradication of both diseases from Europe. Scientists from many countries, including the United States, attended.

Summary of Eradication Plans: A survey of the present epidemiologic pattern of HC in Europe, based on reported outbreaks, reveals an uneven distribution of HC virus.

This is the result of the traditionally different practices of disease prevention in the European countries, which is dependent on the structure of the pig production systems, the routes of trade, and the use of eradication measures or vaccination.

Some European countries have achieved the eradication of HC. To maintain this status, protective measures are taken resulting in barriers to free trade. In some countries the risk of HC is considered to be so high that perpetual vaccination is practiced.

Based on the threat of infection, some countries use both stamping out and vaccination methods. It is generally recognized that the eradication of HC would be more beneficial, however, there are technical, economic, administrative, and coordination of control problems which must be resolved.

Diagnostic methods, control procedures, vaccine, and the epidemiology of HC was discussed. Conference members reviewed the characteristics of HC virus isolated in the United States; persistent congenital infection; viral behavior of bovine virus diarrhea in swine; potential role of insects in transmission; and the pathogenesis of HC in relation to its spread by direct contact.

A summary of research work on ASF was also presented which covered: virus morphology and morphogenesis; immunology and pathogenesis; and diagnosis and serological studies.

### FOREIGN ANIMAL DISEASE COMMITTEE CONCERNED ABOUT FOOT-AND-MOUTH DISEASE

Keeping foot-and-mouth disease (FMD) out of the United States, and eradicating it swiftly should it enter, were the major concerns expressed at USDA's Foreign Animal Disease Advisory Committee meeting held on October 27-28, 1976.

The 20-member committee, meeting together with the Plum Island Animal Disease Center scientific consultants, discussed the ramifications of an FMD outbreak. Scientific and economic studies have estimated that if FMD became established in the United States, it could reduce meat and milk production by 25 percent. The committee, recognizing the extremely serious threat posed by FMD, urged USDA to work closely with the livestock and dairy industries to minimize the drastic impact an FMD outbreak would have on animal marketing and food supplies.

Current plans call for eradicating any FMD outbreak in this country through the immediate destruction and disposal of infected and exposed animals. The committee advocated using all the resources available to USDA, including vaccine if necessary, to bring FMD under control to eradicate it.

How FMD could enter the United States was another area of major concern. Cattle semen has been proven, through research, to carry the FMD virus and transmit the disease. Semen which is imported legally is thoroughly tested to be sure it is free of FMD viruses. On the other hand, semen which is smuggled into the country, is not tested and could easily cause an FMD outbreak. The committee expressed concern that the current low cattle prices will encourage semen smuggling since the testing process is expensive, and the cost must be borne by the importer.

Another method of entry could be through milk products imported from countries where FMD exists. The committee recommended a thorough review of the current restrictions regarding imported milk products to be sure these safeguards are sufficient.

After hearing an update on the situation in the Darien Gap area of Colombia and Panama, the committee again expressed great concern that the Pan American highway not be completed until a program adequate to prevent FMD's northward spread is operating in Colombia. The committee commended USDA for attempting to work out safeguards with Colombia, but felt the results so far are not enough to allow resumption of construction of the highway. It urged that USDA establish a working relationship with Colombia similar to that established with Mexico for FMD prevention since the record shows that the type of organization in use in Mexico is effective.

#### RETIREMENT OF DR. JOHN M. HEJL

Dr. John M. Hejl, Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service of the United States Department of Agriculture, recently announced his retirement effective January 1, 1977.

Dr. Hejl entered Federal service in Omaha, Nebraska, being assigned biologics inspection duties at manufacturing plants in that city. He was transferred to Washington, DC, in 1950, and for 9 years was in charge of licensing veterinary biologics. Subsequently, he was appointed Assistant Director and then Associate Director of the Animal Inspection and Quarantine Division. Later, he was named Director, Veterinary Biologics Division of the Agricultural Research Service. In 1972 he was named Assistant Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service, then Deputy Administrator in June 1974.

Dr. Hejl is a member of the American Veterinary Medical Association and a technical consultant to that Association's Council on Biologics and Therapeutics, the U.S. Livestock Sanitary Association, and the Permanent Section of Microbiological Standardization of the International Association of Microbiological Societies.

## CARICOM BRIEFED ON UNITED STATES HOG CHOLERA STATUS

Representatives from USDA's Veterinary Services and Meat and Poultry Inspection Program were invited to attend a portion of the Caribbean Community (Caricom) meeting held in Georgetown, Guyana, on December 3, 1976, to discuss the hog cholera program in the U.S., and restrictions that had been placed on U.S. pork as a result of outbreaks of the disease in the northeastern part of the United States.

The USDA delegation reported that hog cholera was considered to be an emergency disease in the United States. The steps taken to quickly contain and eradicate any emergency disease outbreak were explained.

Hog cholera outbreaks, in the U.S. during 1976, were discussed at length. The sequence of events that followed, from positive diagnosis to the initial stop movement orders until all infected and exposed herds had been destroyed, buried, and all quarantines removed, were described. Summaries of the eradication activities, animals destroyed, and monies expended were distributed.

Surveillance activities that are being carried out to assure total elimination of hog cholera from the U.S. swine population were explained.

The positions of the Caricom countries regarding restrictions on import of U.S. pork were clarified. An explanation of the types of special export certification for pork from the United States followed.

There is a general agreement that there is a need to improve communications between the U.S. and the Caricom countries regarding animal disease programs.

### THIRD INTRA-CARIBBEAN VETERINARY PUBLIC HEALTH SEMINAR

USDA's Animal and Plant Health Inspection Service, Veterinary Services representatives attended the Third Intra-Caribbean Veterinary Public Health Seminar at Paramaribo, Surinam, December 6-8, 1976, sponsored by the Pan American Health Organization.

Representatives, from each country attending the meeting, had an opportunity to discuss animal health programs and the difficulties and possible solutions to implementation of national programs. A panel discussion and a lively question and answer session followed the formal presentations.

Another session was devoted to program organization, control, and evaluation. The development of program models for veterinary public health programs was a major topic.

The final session was on regional animal and veterinary public health programs.

The U.S. Secretary of Agriculture has authority to cooperate with Colombia, Panama, the Central American countries, Mexico, Canada, the greater Antilles and lesser Antilles in controlling and/or eradicating communicable animal diseases when he deems such action necessary to protect the livestock and poultry industries of the United States.



The U.S. representatives were at the meeting primarily to develop channels of communication with countries in the Caribbean and to determine areas of mutual interest.

Possible areas of cooperation discussed at the meeting involved: laboratory reference assistance, laboratory and foreign animal disease training, exotic disease outbreaks, technical information, and training aids. Additional visits to the countries of the Caribbean are planned to further determine mutual interest.

#### WORLD DISEASE REPORTS\*

Country	Date 1976	New Outbreaks	Country	Date 1976	New Outbreaks
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#### Foot-and-Mouth Disease

Argentina	June 16-Aug. 15	269	Paraguay	June 12-25	1
Brazil	Aug. 21-Sept. 17	590		Sept. 18-Oct. 15	3
Cameroon	August	4	Peru	August	1
Colombia	September	44	Rhodesia	August-September	2
Ecuador	September	3	Spain	June	1
Egypt	September 1-5	2	Sudan	March	2
	October	1	Syria	June	5
Hong Kong	September	8		August	8
India	February-March	363	Tanzania	May-June	4
Iran	September	5	Thailand	May-July	16**
Iraq	October 1-15	1	Turkey	August-September	158
Italy	September-October	12	Uruguay	May-August	72
Kenya	August-September	14	U.S.S.R.	August	12

#### Sheep Pox

Egypt	Sept. 16-Oct. 31	66**	Kenya	August-September	2
India	February-March	41	Kuwait	September	10**
Iran	September	4	Sudan	March	4
Iraq	October	31	Syria	August	10**
Israel	August-September	3	Tunisia	August-September	7
Israel (control Territory)			Turkey	August-September 15	75
	August-October	25	U.S.S.R.	August	2

#### Contagious Bovine Pleuropneumonia

Chad	July	2	Sudan	March	1
Ghana	June	3			

#### Rinderpest

India	February-March	26	Sudan	March	3
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Country	Date 1976	New Outbreaks	Country	Date 1976	New Outbreaks
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### Lumpy Skin Disease

South Africa reported 21 outbreaks from August to September 1976.

### African Horse Sickness

South Africa reported one outbreak in September 1976.

### Dourine

Syria	June	1**	South Africa	August-September	4
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### African Swine Fever

Malawi	June-July	2	Spain	July 16-October 15	144
Portugal	August-September	324			

### Swine Vesicular Disease

United Kingdom	September 16-30	1
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(\*Extracted from International Office of Epizootics, Monthly Circular, numbers 358 and 359).  
(\*\*Cases).

## EXOTIC NEWCASTLE DISEASE

There were no reported cases of viscerotropic velogenic Newcastle disease (VVND) in fiscal year 1976, in the continental United States. The last case occurred in a flock of 28 chickens in Pharr, Texas, on June 6, 1975. Increased effectiveness of surveillance activities, especially those associated with border inspection and import facilities, may have accounted for this period of success. Several isolates have been made from birds which were confiscated along the Mexican border and at import stations in the United States.

VVND still remains a threat as demonstrated by the fact that at least 11 out of 145 lots of commercial birds presented for entry in privately owned quarantine stations were found infected during fiscal year 1976. The national surveillance program for exotic Newcastle disease has enjoyed good lines of communication with poultry and bird industries and practicing veterinarians.  
(From a report of the Committee on Transmissible Diseases of Poultry).